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STANFORD UNIVERSITY SCHOOL OF MEDICINE
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In a paid advertisement in the Stanford Daily, Dr. W. Shockley has suggested that we all undertake a "thinking exercise". Essentially, he recommends sterilization of a fraction of the population by "voluntary sterilization bonuses" so that the other part of the population (obviously non-blacks) can increase in relative numbers in the future generations. Dr. Shockley assures us that he is not the old brand of racist (the standard brands believe that the Teutonic, Scandinavian, etc. "races" are the best), and gives proof of it: his own research has demonstrated that American orientals win ten times more Nobel prizes and are ten times less criminal than "Aryans" (a word somewhat out of fashion since Hitler's death), the "race" to which Dr. Shockley presumably thinks he belongs. He also adds that Jews have won ten times more Nobel prizes than Aryans. We are left in ignorance of the criminal record of Jews which apparently he has not investigated.

Another reader of the Daily (February 4) has already carried Dr. Shockley's "thinking exercise" to the logical point where after the genetic elimination of blacks, the Aryans should come next. Eventually, reproduction of only Orientals and perhaps a few Jews would be encouraged. If Dr. Shockley considers himself an Aryan, it is obvious that he is willing to sacrifice his own genes for the welfare of humanity. The furthest point to which I have been able to take this "thinking exercise" is the following one which is based on the assumption (suggested from demographic considerations) that American Orientals winning Nobel prizes and/or not behaving criminally are mostly from mainland China: True Maoists should contribute to the fund which Dr. Shockley mentions in his paid advertisement, unless they are not Oriental (or at least Jewish) or they are not sufficiently rich in the religious zeal for humanity with which Dr. Shockley must be so well endowed.

Dr. Shockley's "thinking exercise" was accompanied by some scientific statements. A paid advertisement may seem to be a strange way of conducting a scientific discussion, but it still compels me as a human geneticist to mention some further literature to which readers of the Daily may have easy access so they may reach a more balanced view of the subject.

The correlation between degree of racial admixture and mean IQ which according to Dr. Shockley can solve all problems has been -- though briefly -- discussed and found invalid, in an exchange of letters by Dr. Shockley on one side and by Walter Bodmer (now Professor of Genetics at Oxford University) and myself on the other, published in Scientific American of January, 1971 (pp. 6-8). This exchange followed the appearance of an article on "Intelligence and Race" (Scientific American, October, 1970, pp. 19-29) by Professor Bodmer and myself. The letter by Dr. Shockley in answer to our article is instructive in that he qualified Prof. Bodmer and myself as having "irresponsibility toward the essential moral point", that is, I guess, "morally irresponsible" -- probably because we hold views different from his own. In line with this mode of scientific discussion,

Dr. Shockley labels (in his excerpt published by the Daily) people who disagree with his statements as Nazi intellectuals and Lysenkoists. This style should speak for itself.

As for the area of "tabooed research" mentioned by Dr. Shockley, racial differences in brain anatomy: in the article "Brain-size, grey matter and race --fact or fiction", Phillip V. Tobias (American Journal of Physical Anthropology 32:3-26, 1970) critically analyzes existing data and concludes that none of the claims put forward to date on the racial differences in brain-size or structure are valid.

Dr. Shockley does not seem to be interested in the facts showing that in behavior the environment is extremely important, and its effects are confounded with those of the genetic background because of cultural and social inheritance. It is this which makes genetic studies of human behavior difficult and full of traps. The reader may also find useful the recent book by Rosenthal, Genetic Theory and Abnormal Behavior (McGraw-Hill, 1970). This book emphasizes the study of the role of genetics in mental disease and antisocial behavior but keeps a balanced view and shows that the evidence in favor of the importance of environmental effects is overwhelming.

It may be useful to mention a few facts relevant to IQ: twins average 5 IQ points and triplets average 8.5 (± 2) IQ points less than non-twins. Does Dr. Shockley explain this observation on the basis of genetics? In a recent discussion with him, he asked me to send a reference on this topic which I have done. As he has not acknowledged receiving it, I will give it again here both for him and for the readers of the Daily: "An investigation of the difference in measured intelligence between twins and single births," R. G. Record, T. McKeown and J. H. Edwards, Annals of Human Genetics 34: 11-20, 1970. A later article by T. McKeown and R. G. Record ("Early environmental influences on the development of intelligence", 1971, British Medical Bulletin, 27: 48-52) summarizes the situation as follows: "The respective contributions of hereditary and environmental influences to variation in measured intelligence are still unknown."

An old, but presumably still valid, study on the effect of adoption on IQ shows that children of mothers whose IQ is quite low (85), when adopted into normal families, developed IQ's of about 106, that is above the general mean (Skodak and Skeels, 1949, "A final follow up study of one hundred adopted children," Journal of Genetic Psychology, 75: 85-125). It should be noted that factors such as the effect of adoption on the average IQ simply do not enter into measures of heritability as carried out by standard correlation coefficients which are insensitive to changes in averages. Finally, among the most recent contributions, I would like to cite two recent articles in Science by S. Scarr-Salapatek (Race, Social Class, and IQ, Science 174: 1285-1295, December 1971; Unknowns in the IQ Equation, Book Reviews, Science 174: 1223-1228, December 1971), which expose some of the errors,

both scientific and social, which have been made in recent work on the subject; and an article by N. L. Gage in the Phi Delta Kappan (January 1972: 308-312) which is a good example of studying environmental effects on separated identical twins.

These are some of the facts and literature that bear on this issue which do not seem to be ever mentioned by Dr. Shockley. They do not fit his theory.

One of the reactions to the propaganda of Dr. Shockley is perhaps summarized in the title of a recent column by Charles McCabe in the San Francisco Chronicle: "Leave our genes alone."

Yours sincerely,

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